

**Unit Title:** *Agriculture in Ohio*

**Teacher & Grade:** *Grade 4 at Barrington*

**Big Idea/Enduring Understanding:**

**\*What do you want students to remember in 10 years?**

***Ohio Agriculture impacts multiple areas of our lives.***

**Essential Question(s):**

***How do Agricultural Entrepreneurs improve our community and state?***

**Product/Performance Task- Students will create to demonstrate their understanding:**

Students will use the understanding that Ohio Ag impacts multiple areas of their lives to organize and create a service-learning project to improve their community:

1. Research organizations and determine needs. *Feed America*, etc.
2. Create a plan and schedule of services to purchase goods.
3. Perform services to earn money and purchase items for the organization.
4. Reflect on the Process – How did you make a difference in your community?

**Real world purpose/audience:**

Our Community Organization

**Real world models (e.g. mentor texts, etc.):**

*Tortilla Factory* by Gary Paulson  
*How Crayons are Made*  
*Ox Cart Man*

**List of possible texts students will read to help them uncover topic:**

Ohio Non-fiction Resources  
Scarlet and Gray Ag Day, Ohio State University  
Speakers

## ***I Can* Statements for Content & Skills      Formative/Summative Assessments**

### **I can explain how Agriculture is important in Ohio.**

- Explain the impact of imports and exports, showing why many jobs in Ohio depend on markets in other countries and why Ohio is a market for goods and services from other countries.
- Identify manufacturing, agricultural, mining, and forestry regions in Ohio.

### **Discussion Questions:**

- Where does food come from in Ohio?
- Where does food go from Ohio?
- How does access to food and other agricultural products help you make healthy choices?
- How can we help people that do not have access to these products?

Attending Ag Day at OSU

Graphic Organizers

Charts

Cookie Economics

The Rise of Industry – Non-fiction text

Ohio Map Resource Assessment

Econ Quest - Complex Thinking

### **I can describe what is important in the production of goods and services:**

- *Entrepreneurship*
- *Capital Goods*
- *Productive Resources*
- *Land, Labor, Capital*
- *Technology*
- *Division of Labor*

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Econ Quest - Complex Thinking

### **I can create and execute a plan that will serve others in my community.**

- Explain ways in which individuals and households obtain and use income.
- Explain why people in Ohio specialize in what they produce and then trade with others, which then increases the amount of goods and services available.
- Identify the productive resources needed to produce a good or service, and suggest opportunity costs for the resources involved.

Data Collection:

Food, Hygiene, & Healthy Habit

Service Plan

Schedule

Shopping List

Refection & Rubric

### **I can collect and organize data about the basic health needs of people in our community.**

- Describe healthy living habits that can reduce the risk of illness and injury.

Data Collection:

Food, Hygiene, & Healthy Habit

Service Plan

Schedule

Shopping List

Refection & Rubric

# ***Academic Content Standards***

## **Fourth Grade Social Studies**

### **Citizenship Rights and Responsibilities**

- Explain the importance of leadership and public service.
- Explain why personal responsibilities (e.g., taking advantage of the opportunity to be educated) and civic responsibilities (e.g., obeying the law and respecting the rights of others) are important.

### **Economics**

**Explain how competition affects producers and consumers in a market economy and why specialization facilitates trade.**

- Explain the impact of imports and exports, showing why many jobs in Ohio depend on markets in other countries and why Ohio is a market for goods and services from other countries.
- Explain ways in which individuals and households obtain and use income.
- Explain why people in Ohio specialize in what they produce and then trade with others, which then increases the amount of goods and services available.

**Explain the opportunity costs involved in the allocation of scarce productive resources.**

- Explain how the availability of productive resources in Ohio promotes specialization in the production of goods and services and leads to trade.
- Identify the productive resources needed to produce a good or service, and suggest opportunity costs for the resources involved.

**Explain why entrepreneurship, capital goods, technology, specialization, and division of labor are important in the production of goods and services.**

**Explain how entrepreneurs seek to make profits by taking risks and how they organize productive resources to produce goods and services.**

### **Geography**

**Identify the physical and human characteristics of places and regions in North America.**

- Identify manufacturing, agricultural, mining, and forestry regions in Ohio.

## **Fourth Grade Health**

### **Health Promotion and Disease Prevention**

- The acquisition of basic health concepts and functional health knowledge provides a foundation for promoting health enhancing behaviors among youth. This standard includes essential concepts that are based on established health behavior theories and models. Concepts that focus on both health promotion and risk reduction are included in the performance indicators.

**Recognize that there are multiple dimensions of health and describe why it is important to seek health care.**

- Describe healthy living habits that can reduce the risk of illness and injury.
- Explain the importance of assuming responsibility for personal health behavior (e.g. general hygiene).

## *Fourth Grade Science:*

### *Science and Technology*

#### **Abilities To Do Technological Design**

**Describe and illustrate the design process.**

- Describe, illustrate and evaluate the design process used to solve a problem.

#### **Understanding Technology**

**Describe how technology affects human life.**

- Explain how technology from different areas (e.g., transportation, communication, nutrition, healthcare, agriculture, entertainment and manufacturing) has improved human lives.
- Investigate how technology and inventions change to meet peoples' needs and wants.

#### **Ethical Practices**

**Explain the importance of keeping records of observations and investigations that are accurate and understandable.**

- Explain why keeping accurate records of observations and investigations is important.
- Explore the importance of honesty, ethics, openness, skepticism and concern for health and safety in making observations, reports and decisions.

# **Upper Arlington City Schools--District Guide to Twenty-First Century Skills**

DRAFT VERSION—WORK IN PROGRESS Version 1.4 9/24/2010

## **A COMPLEX THINKER . . .**

### **Indicator 1: Identifies and defines authentic problems and essential questions.**

**We hear it when people ask:**

- ☐ "What's really the problem at the heart of all this?"
- ☐ "What's the main idea that ties all this together?"
- ☐ "How do these things relate to each other?"

**We see it when people:**

- ☐ Clarify and sort essential information from non-essential information.
- ☐ Try to understand the root of the problem.
- ☐ Find the "umbrella" concept that unites all the pieces.
- ☐ Create a research question to begin exploring a problem.

**In Other Words... Teachers help students see what really matters and show them how to independently explore and solve problems.**

### **Indicator 2: Collects, assesses and analyzes relevant information.**

**We hear it when people ask:**

- ☐ "What's the best way to research this?"
- ☐ "How do I know this is true? How can I find out?"
- ☐ "So what? How is this information significant?"
- ☐ "Does this evidence help me answer the question or not?"
- ☐ "How are these things similar? Different?"

**We see it when people:**

- ☐ Break down a concept, idea, or evidence into its component parts, to understand how the parts make the whole.
- ☐ Sift through pieces to learn more about a problem.
- ☐ Keep a record of what they find and where to find it again.
- ☐ Figure out what evidence is most relevant.
- ☐ Evaluate sources of information for their credibility.
- ☐ Use graphic organizers to process information as it comes to them.

**In Other Words... Teachers help students learn how to do research and examine evidence.**

### **Indicator 3: Explores and develops solutions.**

**We hear it when people ask:**

- ☐ "How can we solve this? How ELSE can we solve this?"
- ☐ "Is this solution really the best one? What are the drawbacks and benefits?"
- ☐ "What are possible unintended consequences if this happens?"
- ☐ "Are we using our resources in the best way?"
- ☐ "How can we make this better?"

**We see it when people:**

- ☐ Use evidence to support a position.
- ☐ Think outside the box.
- ☐ Propose answers to their research or essential question, using data.
- ☐ Discuss the best way to use limited resources to solve the problem.

**In Other Words... Teachers help students learn to develop multiple approaches to solve complex problems.**

#### **Indicator 4: Makes judgments and decisions.**

##### **We hear it when people ask:**

- ☐ “How do we know that’s true?”
- ☐ “What makes this better than that?”
- ☐ “By what criteria is that ‘good’ work?”
- ☐ “What is the rationale behind that person’s position?”
- ☐ “How credible, reliable, or accurate is that position?”

##### **We see it when people:**

- ☐ Analyze and evaluate data/evidence, arguments, claims and beliefs.
- ☐ Synthesize and make connections between information and arguments.
- ☐ Interpret information and draw conclusions based on the best analysis.
- ☐ Weigh solutions and positions based on criteria.

**In Other Words...Teachers help students learn to evaluate positions and look for the reasoning behind actions and beliefs.**

#### **Indicator 5: Uses systems thinking to understand complex inter-relationships.**

##### **We hear it when people ask:**

- ☐ “What is changing? How is it changing?”
- ☐ “What is the relationship between the things that are changing? Is there a cause-and effect relationship at work?”
- ☐ “What part do we play in this system?”
- ☐ “What are the potential consequences of our actions?”
- ☐ “What happens when something gets added or taken away from the system?”

##### **We see it when people:**

- ☐ Develop awareness by seeking to understand the big picture
- ☐ Develop understanding by changing perspectives
- ☐ Plan and take action by considering both short and long term consequences of actions, finding unintended and delayed consequences, and checking results and changing actions if needed.
- ☐ Examine parts to see the whole interconnected system.

**In Other Words...Teachers and students strive to understand the complexities and interconnectedness of our world systems by using the habits, strategies, and tools of systems thinking.**

#### **Indicator 6: Reflects critically on learning experiences, processes and solutions.**

##### **We hear it when people ask:**

- ☐ “What were my strengths?”
- ☐ “How can I learn from other people to grow in new directions?”
- ☐ “What knowledge do I need? Skills? Understandings?”
- ☐ “What have I taken away from this experience?”
- ☐ “What will I do differently next time?”

##### **We see it when people:**

- ☐ Pause to examine their own work.
- ☐ Seek both “warm” and “cool” feedback to improve themselves.
- ☐ Look back on the learning process steps to see where they performed well or missed the target.
- ☐ Use data to inform their practice.
- ☐ Make specific, measurable, attainable, results-oriented and time-bound goals and create benchmarks.
- ☐ Celebrate their own successes.

**In Other Words... Teachers help students to think about their thinking, to make their thinking better next time.**